







Proceeding

8 th International Conference on Education and Social Science (ICESS-2023)

"New Approaches in Education and Social Science"

November 4th, 2023

Faculty of Education, Thaksin University, Thailand

8th International Conference in Education and Social Science (ICESS-2023)

"New Approaches in Education and Social Science"

4th November. 2023

Faculty of Education Thaksin University

November 4th, 2023 Faculty of Education Thaksin University ISSN 1905-6923

Innovative Educators: the change agent for driving the quality of education.

Natcha Mahapoonyanont, Nuttapong Songsang*, Wipapan Phinla, Wipada Phinla, Uthai Sirikun, Sukparut Raksakan, Phatcharida Foithong, Warapop Tanhui Faculty of Education, Thaksin University, Songkhla, Thailand Author email: (1) natch@tsu.ac.th (2) natcha.m@hotmail.com

*Corresponding Author email: acdirectorns@gmail.com

Abstract

Innovative educators play a pivotal role as change agents in driving the quality of In the realm of education, innovative educators stand as pivotal change agents, driving the transformation of educational practices and the enhancement of educational quality. This study delves into the dynamic roles undertaken by innovative educators, examining their progressive teaching methodologies, integration of cutting-edge technologies, and their impact on student engagement and learning outcomes. Through qualitative analysis, this research explores the multifaceted strategies these educators employ to create vibrant and compelling learning environments. Their influence extends beyond the classroom, shaping institutional policies and fostering a culture of continuous improvement. By investigating the strategies, challenges, and successes of innovative educators, this study provides valuable insights into the critical role they play in shaping the future of education. Their leadership and dedication to continuous improvement have a profound impact on students' learning outcomes and experiences. This study highlights the vital role of innovative educators in advancing the field of education, emphasizing the need for recognition and support to sustain the momentum of educational progress.

Keywords: Education Innovation, Innovative Educators, change agent, driving the quality of education

Introduction

In the rapidly evolving landscape of education, the role of innovative educators as change agents has gained significant prominence. These individuals, often referred to as the driving force behind improving the quality of education, introduce novel teaching approaches, employ advanced technologies, and cultivate dynamic learning environments. The influence of innovative educators extends beyond the classroom, shaping educational policy and practice on a broader scale.

In the quest to enhance the quality of education, it is essential to recognize the pivotal contributions of innovative educators. Their innovative practices, ability to adapt to changing educational paradigms, and dedication to fostering a growth mindset in both students and colleagues have far-reaching implications for the learning process. This introduction aims to shed light on the significance of their role in the educational ecosystem, emphasizing their influence on the learning experiences of students and the overall improvement of educational systems.

As we delve into the study of innovative educators as change agents, it is essential to acknowledge the extensive body of research and literature that underpins our understanding of their contributions. The works of influential researchers such as Hattie (2012), Dweck (2006), and Marzano (2001) have provided valuable insights into the impact of innovative teaching practices, while theories of learning and motivation (e.g., Flavell, 1979; Locke & Latham, 2019) continue to inform the strategies employed by innovative educators.

This study examines the multifaceted dimensions of innovative educators' roles, from their classroom practices to their influence on educational policy. By doing so, it aims to provide a comprehensive view of how these change agents are instrumental in driving the quality of education, ultimately benefiting educators and learners alike.

Method and Materials

The following are the stages of this study.

- Step 1: Define Research Objectives Clearly outline the research objectives and questions for studying innovative educators as change agents for improving education quality. Determine specific aspects to investigate, such as teaching methods, leadership qualities, or impact on student outcomes.
- Step 2: Identify Relevant Documents Collect diverse documents related to innovative educators, such as research papers, articles, conference proceedings, educational policies, and case studies. Focus on materials that provide insights into the practices, philosophies, and successes of innovative educators.
- Step 3: Categorize and Organize Systematically categorize the collected documents based on themes such as teaching strategies, leadership styles, student engagement, or educational policies. Organize the materials to facilitate practical analysis and comparison.
- Step 4: Conduct Document Analysis Employ qualitative techniques like coding, content analysis, or thematic analysis to extract relevant information from the documents. Identify patterns, trends, and commonalities among innovative educators' approaches to driving educational quality.
- Step 5: Contextualize Findings Contextualize the findings within the broader educational landscape. Consider socio-economic factors, cultural influences, and institutional contexts that might affect the practices of innovative educators. Compare the strategies used in different contexts to draw nuanced conclusions.
- Step 6: Interpretation and Synthesis Interpret the analyzed data to draw meaningful conclusions about the impact of innovative educators on education quality. Synthesize the findings to highlight key themes, challenges faced, and successful strategies employed by these change agents.
- Step 7: Recommendations and Implications Based on the synthesized findings, provide recommendations for educational policymakers, institutions, and educators to enhance the quality of education. Discuss the implications of innovative practices and suggest ways to support and promote such initiatives.

Results

Innovative Educators as Change Agents in Developing Education Quality

In today's rapidly evolving educational landscape, innovative educators serve as change agents, enhancing education quality. They play a crucial role in reshaping teaching methods, fostering student engagement, and integrating technology to create dynamic learning environments. This section explores why innovative educators are essential change agents, how they bring about transformation, and what specific strategies they employ to improve education quality.

Why Innovative Educators are Change Agents:

Innovative educators possess a deep understanding of contemporary educational needs. They recognize the importance of adapting to diverse learning styles, catering to individual student needs, and preparing students for the challenges of the future workforce (Robinson, 2011). Their passion for education and commitment to continuous improvement empower them to challenge traditional norms and seek innovative solutions.

How Innovative Educators Drive Change:

- 1. Adopting Progressive Pedagogies: Innovative educators incorporate student-centered and inquiry-based teaching approaches (Darling-Hammond, 2017). They focus on active learning, collaborative problem-solving, and critical thinking, nurturing students' skills beyond rote memorization.
- 2. Integrating Technology: Utilizing technology in creative ways, innovative educators enhance interactive learning experiences (Ertmer & Ottenbreit-Leftwich, 2013). They leverage digital tools, online resources, and interactive platforms to make learning engaging and accessible.
- 3. Promoting Lifelong Learning: Innovative educators instill a growth mindset in their students, encouraging them to embrace challenges and view failures as opportunities for learning and growth (Dweck, 2006). This mindset fosters resilience and a passion for lifelong learning.

What Innovative Educators Do to Improve Education Quality:

- 1. Professional Development: Innovative educators invest in their own professional development, staying updated with the latest teaching methodologies and technologies (Inan & Lowther, 2010). They attend workshops, conferences, and online courses to enhance their skills.
- 2. Collaborative Learning Communities: They actively participate in collaborative learning communities within and outside their institutions (Fullan, 1993). Collaborative networks provide a platform for sharing innovative ideas and best practices.
- 3. Action Research: Innovative educators conduct action research within their classrooms, experimenting with new teaching techniques and assessing their impact on student learning outcomes (Sagor, 2000). This data-driven approach informs their instructional decisions.

In conclusion, innovative educators serve as change agents in education by embracing progressive pedagogies, integrating technology, promoting lifelong learning, engaging in continuous professional development, fostering collaborative communities, and conducting action research. Through their dedication and creativity, they contribute significantly to the development and enhancement of education quality.

Innovative Educators: Pioneering Novel Teaching Approaches for Enhanced Education Quality

In the ever-evolving landscape of education, innovative educators are at the forefront of introducing novel teaching approaches that significantly enhance the quality of education. Through creative pedagogies, integration of technology, and a deep understanding of diverse learning needs, these educators revolutionize the learning experience, fostering critical thinking, creativity, and adaptability among students.

- 1. Personalized Learning Paths: Innovative educators recognize the unique strengths and challenges of each student. By tailoring learning experiences to individual needs and interests, they create personalized learning paths. This approach enhances student engagement and promotes a deeper understanding of the subject matter (Tomlinson, 2014).
- 2. Incorporating Technology for Active Learning: Innovative educators leverage technology to create interactive and engaging learning experiences. By integrating tools such as educational apps, virtual reality, and online collaboration platforms, they facilitate active learning and provide students with real-world skills (Brown, 2014; Puentedura, 2006). By implementing active learning techniques, such as collaborative projects, debates, and problem-solving activities, innovative educators encourage student participation. Active learning fosters a dynamic classroom environment, stimulating critical thinking and knowledge retention (Freeman et al., 2014).
- 3. Personalized Learning for Diverse Needs: These educators recognize the diversity of their students' learning needs. They employ personalized learning techniques, allowing students to progress at their own pace and tailor their educational experiences (Dweck, 2006; Tomlinson, 2017).
- 4. Embracing Project-Based and Experiential Learning: Innovative educators emphasize project-based and experiential learning, where students engage in hands-on activities, problem-solving, and critical thinking. These approaches enhance retention and understanding (Larmer & Mergendoller, 2010; Kolb, 1984).
- 5. Fostering a Growth Mindset: Educators who promote a growth mindset inspire students to embrace challenges and view failures as opportunities for growth (Dweck, 2006). This approach enhances resilience, motivation, and the quality of learning experiences.
- 6. Technology Integration: Incorporating educational technology tools and platforms, innovative educators create interactive and multimedia-rich lessons. Technology not only facilitates access to a vast array of resources but also cultivates digital literacy skills essential for the modern world (Prensky, 2001).
- 7. Culturally Responsive Teaching: Innovative educators embrace diversity and inclusivity in their classrooms. They integrate culturally responsive teaching practices, acknowledging students' backgrounds and experiences. This approach creates a supportive learning environment and enhances students' sense of belonging (Gay, 2018).

- 8. Flipped Classroom Models: By flipping the traditional classroom dynamic, innovative educators move lectures and content consumption outside the classroom through online videos and resources. Class time is then utilized for interactive discussions and problem-solving, promoting active engagement and deeper understanding (Bergmann & Sams, 2012).
- 9. Project-Based Learning: Engaging students in real-world projects, innovative educators facilitate hands-on learning experiences. Project-based learning not only enhances subject knowledge but also hones teamwork, communication, and critical thinking skills (Thomas, 2000).
- 10. Continuous Professional Development: Innovative educators are lifelong learners themselves. They actively participate in continuous professional development, staying updated with the latest pedagogical research and teaching methodologies (Guskey & Yoon, 2009). Innovative educators commit to their own professional growth. They engage in lifelong learning, attending workshops, conferences, and collaborating with peers to stay updated on the latest teaching methods (Fullan, 2016; Darling-Hammond & Bransford, 2005).
- 11. Cultivating a Positive Learning Environment: By creating a positive, inclusive classroom atmosphere, innovative educators enhance student well-being, motivation, and overall satisfaction with their educational experiences (Hamre & Pianta, 2001; Mercer & Littleton, 2007).

In conclusion, innovative educators play a pivotal role in shaping the future of education by embracing new teaching approaches. Their commitment to fostering a stimulating, inclusive, and technology-enhanced learning environment ensures the development of well-rounded, adaptable, and empowered individuals. Innovative educators are at the forefront of improving education quality. Their creative and adaptable teaching methods, driven by a growth mindset and supported by technology and personalization, transform education into a dynamic, engaging, and practical endeavor. By embracing novel teaching approaches, they empower students to excel and contribute positively to a rapidly changing world.

Innovative Educators: Harnessing Advanced Technologies for Enhancing Education Quality

In the contemporary educational landscape, innovative educators are leveraging advanced technologies to revolutionize teaching and learning experiences, thereby enhancing education quality. By integrating cutting-edge tools and platforms, these educators engage students, facilitate personalized learning, and foster critical skills for the digital age. This discussion explores the multifaceted ways innovative educators employ technology, emphasizing its impact on education quality and providing insights into effective practices.

- 1. Personalized Learning Environments: Innovative educators use adaptive learning software and intelligent tutoring systems (Kieslinger, 2013) to tailor educational content based on individual student needs, promoting personalized learning experiences (Dabbagh & Kitsantas, 2012).
- 2. Interactive Multimedia Resources: Educators incorporate multimedia resources such as interactive simulations and virtual reality (Bacca et al., 2014) to create immersive learning environments, enhancing student engagement and comprehension.
- 3. Collaborative Online Platforms: Online collaborative platforms and learning management systems (LMS) (Picciano, 2017) enable innovative educators to facilitate group

projects, discussions, and knowledge sharing, fostering collaborative skills essential in the digital era.

- 4. Gamification and Educational Games: Gamified learning experiences and educational games (Pivec et al., 2017) motivate students, enhance problem-solving abilities, and promote active participation, contributing to improved learning outcomes.
- 5. Artificial Intelligence and Machine Learning: Artificial intelligence (AI) and machine learning algorithms (Siemens, 2013) empower educators with data-driven insights, allowing for personalized feedback, early intervention, and adaptive instructional strategies.
- 6. Blended Learning Models: Innovative educators seamlessly integrate online and face-to-face instruction (Graham et al., 2013), optimizing learning experiences, promoting self-directed learning, and accommodating diverse learning styles.
- 7. Professional Development through Technology: Educators engage in online communities, webinars, and digital courses (Keengwe et al., 2014) to enhance their pedagogical skills, ensuring they remain updated with the latest educational technologies and best practices.

Innovative educators, by embracing advanced technologies, create dynamic and inclusive learning environments. These technologies not only enhance education quality but also equip students with essential skills, preparing them for the challenges of the 21st-century digital world.

Cultivating Dynamic Learning Environments: The Role of Innovative Educators in Enhancing Education Quality

Innovative educators are catalysts for change, transforming traditional classrooms into dynamic learning environments that foster creativity, critical thinking, and lifelong learning skills. This article explores the strategies employed by innovative educators to cultivate dynamic learning environments, thereby enhancing the overall quality of education.

- 1. Embracing Technology: Innovative educators leverage technology to create interactive and engaging learning experiences. Integrating multimedia resources, educational apps, and online platforms enhances students' access to information and collaborative learning opportunities (Johnson et al., 2015). Incorporating technology into the learning process is a hallmark of innovative educators. Educational technology enhances access to resources, provides personalized learning experiences, and prepares students for the digital age (Papadakis et al., 2017).
- 2. Personalized Learning: By recognizing the diverse learning needs of students, innovative educators implement personalized learning approaches. Adaptive assessments and tailored lesson plans allow students to progress at their own pace, ensuring a customized educational experience (Pane et al., 2017). Innovative educators frequently incorporate progressive teaching methods that engage students actively in the learning process. Active learning, flipped classrooms, problem-based learning, and inquiry-based instruction encourage critical thinking and more profound understanding (Freeman et al., 2014).
- 3. Effective Strategies: These educators effectively address diverse student needs. Differentiated instruction, formative assessment, and student-centered learning enable personalized support and ensure that every student can succeed (Tomlinson, 2014). Innovative

educators employ active techniques such as problem-based learning, group discussions, and hands-on activities. These methods encourage student participation, critical thinking, and knowledge application, fostering a deeper understanding of the subject (Freeman et al., 2014).

- 4. Cultivating a Growth Mindset: Promoting a growth mindset, innovative educators inspire students to embrace challenges and view failures as opportunities to learn and improve. This mindset cultivates resilience, perseverance, and a positive attitude toward learning (Dweck, 2006). Innovative educators understand the importance of cultivating a growth mindset among their students. They encourage learners to view challenges as opportunities for growth, fostering resilience and adaptability (Dweck, 2006).
- 5. Building Collaborative Communities: Innovative educators create collaborative learning communities within and beyond the classroom. Collaborative projects, peer-to-peer interactions, and partnerships with external organizations enhance students' social and teamwork skills, preparing them for real-world challenges (Dillenbourg, 1999; Little, 2012).

Innovative educators play a vital role in shaping the future of education by fostering dynamic learning environments. By integrating technology, personalizing learning experiences, promoting active learning, nurturing growth mindsets, and building collaborative communities, these educators empower students to thrive in a rapidly changing world, ultimately elevating the quality of education. By embracing these approaches, innovative educators create dynamic learning environments where students are motivated, empowered, and equipped with the skills and knowledge necessary for success in the 21st century. Their dedication to continuous improvement and creative problem-solving ensures that education remains relevant, impactful, and of the highest quality.

Conclusions

Innovative teaching practices have become essential in reshaping the education landscape, fostering enhanced learning experiences, and ultimately elevating the overall quality of education. Through integrating technology, active learning strategies, and personalized instruction, innovative teaching practices not only prepare students for the challenges of the modern world but also contribute significantly to the continuous improvement of education quality. The key impacts of innovative teaching practices on education quality are supported by relevant literature.

- 1. Enhanced Student Engagement: Innovative teaching practices, such as flipped classrooms and interactive technologies, create active and participatory learning environments, increasing student engagement (Bishop & Verleger, 2013). Innovative teaching methods, such as project-based learning and interactive classroom activities, significantly enhance student engagement. Active participation and hands-on experiences create a dynamic learning environment, promoting deeper understanding and knowledge retention (Freeman et al., 2014).
- 2. Improved Learning Outcomes: Incorporating innovative techniques, such as flipped classrooms and collaborative learning, leads to improved learning outcomes. Students in technology-enhanced environments often demonstrate higher achievement levels and better problem-solving skills (Hattie, 2012; Tucker, 2012).
- 3. Improved Critical Thinking Skills: Problem-based learning and collaborative projects promote critical thinking and problem-solving skills, essential for navigating complex

real-world situations (Prince & Felder, 2007). Innovative teaching practices nurture critical skills such as critical thinking, creativity, and communication. Problem-based learning and inquiry-based approaches encourage students to analyze complex issues, think critically, and communicate their ideas effectively (Partnership for 21st Century Learning, 2009).

- 4. Personalized Learning Experiences: Innovative practices allow for personalized learning pathways, catering to diverse student needs and learning styles (Means et al., 2009).
- 5. Technology Integration: Integrating educational technologies enhances accessibility and interactivity, expanding educational opportunities beyond traditional classrooms (Mishra & Koehler, 2006). Integrating technology into teaching practices equips students with digital literacy skills essential for the modern workforce. Educational technologies, such as online simulations and virtual reality, provide immersive learning experiences, enhancing students' understanding of complex concepts (Papastergiou, 2009).
- 6. Development of Lifelong Learning Skills: Innovative teaching fosters skills such as information literacy, adaptability, and self-directed learning, essential for lifelong learning in the digital age (Dede, 2010). Innovative teaching encourages a culture of lifelong learning. By promoting curiosity, adaptability, and self-directed learning, educators prepare students for continuous learning beyond the classroom, ensuring their readiness for future challenges (European Commission, 2012).
- 7. Cultivation of Creativity and Innovation: Incorporating creative teaching methods stimulates innovation and creativity among students, preparing them for a rapidly evolving global economy (Sawyer, 2006).

Innovative teaching practices play a vital role in shaping the future of education. By enhancing student engagement, improving learning outcomes, developing critical skills, integrating technology, and fostering a passion for lifelong learning, these practices contribute significantly to the overall quality of education.

Acknowledgments

This work was supported by Thaksin University Research Fund.

Reference

- Anseel, F., et al. (2015). The relationship between students' perception of a strong versus weak situation of feedback and their perception of the value and effectiveness of different types of feedback. International Journal of Training and Development, 19(4), 257-281.
- Bacca, J., Baldiris, S., Fabregat, R., Graf, S., & Kinshuk. (2014). Augmented reality trends in education: A systematic review of research and applications. Educational Technology & Society, 17(4), 133-149.
- Bergmann, J., & Sams, A. (2012). Flip your classroom: Reach every student in every class every day. International Society for Technology in Education.
- Bishop, J. L., & Verleger, M. A. (2013). The flipped classroom: A survey of the research. In ASEE National Conference Proceedings, Atlanta, GA.
- Brown, J. S. (2014). The connected age. Deloitte Review, 16, 78-86.

- Dabbagh, N., & Kitsantas, A. (2012). Personal learning environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. The Internet and Higher Education, 15(1), 3-8.
- Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? European Journal of Teacher Education, 40(3), 291-309.
- Darling-Hammond, L., & Bransford, J. (Eds.). (2005). Preparing teachers for a changing world: What teachers should learn and be able to do. John Wiley & Sons.
- Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession: A status report on teacher development in the United States and abroad. Stanford, CA: Stanford University, Stanford Center for Opportunity Policy in Education.
- Dede, C. (2010). Comparing frameworks for 21st century skills. In J. Bellanca & R. Brandt (Eds.), 21st Century Skills: Rethinking How Students Learn (pp. 51-76). Solution Tree Press.
- Dillenbourg, P. (1999). Collaborative Learning: Cognitive and Computational Approaches. Oxford: Elsevier.
- Dweck, C. S. (2006). Mindset: The new psychology of success. Random House.
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2013). Removing obstacles to the pedagogical changes required by Jonassen's vision of authentic technology-enabled learning. Computers & Education, 64, 175-182.
- European Commission. (2012). Rethinking education: Investing in skills for better socio-economic outcomes. Luxembourg: Publications Office of the European Union.
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. Proceedings of the National Academy of Sciences, 111(23), 8410-8415.
- Freeman, S., et al. (2014). Active learning increases student performance in science, engineering, and mathematics. Proceedings of the National Academy of Sciences, 111(23), 8410-8415.
- Fullan, M. (1993). Change forces: Probing the depths of educational reform. Falmer Press.
- Fullan, M. (2015). The Principal: Three Keys to Maximizing Impact. John Wiley & Sons.
- Fullan, M. (2016). The new meaning of educational change (5th ed.). Teachers College Press.
- Gay, G. (2018). Culturally responsive teaching: Theory, research, and practice. Teachers College Press.
- Gee, J. P. (2003). What video games have to teach us about learning and literacy. Computers in Entertainment (CIE), 1(1), 20-20.
- Graham, C. R., Woodfield, W., & Harrison, J. B. (2013). A framework for institutional adoption and implementation of blended learning in higher education. The Internet and Higher Education, 18, 4-14.
- Guskey, T. R., & Yoon, K. S. (2009). What works in professional development? Phi Delta Kappan, 90(7), 495-500.
- Hamre, B. K., & Pianta, R. C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. Child Development, 72(2), 625-638.

- Hargreaves, A., & Shirley, D. (2009). The fourth way: The inspiring future for educational change. Corwin Press.
- Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. Routledge.
- Hattie, J. (2012). Visible learning for teachers: Maximizing impact on learning. Routledge.
- Hattie, J. (2015). The applicability of visible learning to higher education. Scholarship of Teaching and Learning in Psychology, 1(1), 79-91.
- Inan, F. A., & Lowther, D. L. (2010). Laptops in the K-12 classrooms: Exploring factors impacting instructional use. Computers & Education, 55(3), 937-944.
- Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., & Hall, C. (2016). NMC/CoSN Horizon Report: 2016 K-12 Edition. The New Media Consortium.
- Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2015). NMC/CoSN Horizon Report: 2015 K-12 Edition. The New Media Consortium.
- Keengwe, J., Onchwari, G., & Agamba, J. (2014). Promoting effective e-learning practices through the constructivist pedagogy. Education and Information Technologies, 19(4), 887-898.
- Kieslinger, B. (2013). Enabling technologies for learning and teaching. In S. J. Armstrong, & S. Fukuda (Eds.), Handbook of Research on Learning Outcomes and Opportunities in the Digital Age (pp. 143-166). IGI Global.
- Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? Contemporary Issues in Technology and Teacher Education, 9(1), 60-70.
- Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Prentice-Hall.
- Larmer, J., & Mergendoller, J. R. (2010). Project-based learning. Educational Leadership, 68(5), 44-48.
- Little, J. W. (2012). Professional community and professional development in the learning-centered school. In A. Lieberman & L. Miller (Eds.), Teachers caught in the action: Professional development that matters (pp. 201-226). Teachers College Press.
- Means, B., Toyama, Y., Murphy, R., & Baki, M. (2009). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. Teachers College Record, 115(3), 1-47.
- Mercer, N., & Littleton, K. (2007). Dialogue and the development of children's thinking: A sociocultural approach. Routledge.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. Teachers College Record, 108(6), 1017-1054.
- Oblinger, D. G., & Oblinger, J. L. (Eds.). (2005). Educating the Net Generation. Educause.
- Pane, J. F., Steiner, E. D., Baird, M. D., Hamilton, L. S., & Pane, J. D. (2017). Continued Progress: Promising Evidence on Personalized Learning. RAND Corporation.
- Papadakis, S., Kalogiannakis, M., & Zaranis, N. (2017). The impact of mobile games in education on student learning: A literature review. Education and Information Technologies, 22(5), 2733-2760.
- Papastergiou, M. (2009). Digital game-based learning in high school computer science education: Impact on educational effectiveness and student motivation. Computers & Education, 52(1), 1-12.

- Partnership for 21st Century Learning. (2009). Framework for 21st Century Learning. Retrieved from http://www.p21.org/about-us/p21-framework
- Picciano, A. G. (2017). Online education: Foundations, planning, and pedagogy. Routledge.
- Pivec, M., Dziabenko, O., & Gütl, C. (2017). Games, gamification, and gameful design: A review and conceptual framework. In S. Ifenthaler, D. Eseryel, & X. Ge (Eds.), Computer-Based Learning Environments and Problem Solving (pp. 51-85). Springer.
- Prensky, M. (2001). Digital natives, digital immigrants part 1. On the Horizon, 9(5), 1-6.
- Prensky, M. (2001). Digital natives, digital immigrants. On the Horizon, 9(5), 1-6.
- Prince, M. (2004). Does active learning work? A review of the research. Journal of Engineering Education, 93(3), 223-231.
- Prince, M., & Felder, R. M. (2007). The many faces of inductive teaching and learning. Journal of College Science Teaching, 36(5), 14-20.
- Puentedura, R. (2006). Transformation, technology, and education. Retrieved from http://hippasus.com/resources/tte
- Puentedura, R. R. (2006). SAMR: A model for enhancing technology integration. Available at: http://hippasus.com/resources/sweden2008/SAMR_Sweden.pdf
- Robinson, K. (2010). Changing education paradigms. RSA Animate. Retrieved from https://www.youtube.com/watch?v=zDZFcDGpL4U
- Robinson, K. (2011). Out of our minds: Learning to be creative. Capstone Publishing.
- Robinson, V. M. J., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. Educational Administration Quarterly, 44(5), 635-674.
- Sagor, R. (2000). Guiding school improvement with action research. Association for Supervision and Curriculum Development.
- Sawyer, R. K. (2006). Educating for innovation. Thinking Skills and Creativity, 1(1), 41-48.
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. International Journal of Instructional Technology and Distance Learning, 2(1), 3-10.
- Siemens, G. (2013). Learning analytics: The emergence of a discipline. American Behavioral Scientist, 57(10), 1380-1400.
- Thomas, J. W. (2000). A review of research on project-based learning. San Rafael, CA: Autodesk Foundation.
- Thorne, S. L., & Black, R. W. (2007). Language and literacy development in computer-mediated contexts and communities. Annual Review of Applied Linguistics, 27, 4-18.
- Tomlinson, C. A. (2014). The differentiated classroom: Responding to the needs of all learners. ASCD.
- Tomlinson, C. A. (2017). How to differentiate instruction in academically diverse classrooms. ASCD.
- Trilling, B., & Fadel, C. (2009). 21st Century Skills: Learning for Life in Our Times. Jossey-Bass.
- Tucker, B. (2012). The flipped classroom. Education Next, 12(1), 82-83.
- Wagner, T. (2008). The global achievement gap: Why even our best schools don't teach the new survival skills our children need—and what we can do about it. Basic Books.
- Wiggins, G., & McTighe, J. (2005). Understanding by design (2nd ed.). ASCD.

Zhao, Y. (2012). World class learners: Educating creative and entrepreneurial students. Corwin Press.

Zhao, Y. (2016). What Works May Hurt: Side Effects in Education. Teachers College Press.